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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,803	08/27/2003	Marco Musaragno	66309-0182	3939

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Washington, DC 20005

EXAMINER

SMALLEY, JAMES N

ART UNIT	PAPER NUMBER
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3727

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/648,803

Applicant(s)

MUSARAGNO, MARCO

Examiner

James N Smalley

Art Unit

3727

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/27/03</u> . | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall US 2,428,114 in view of Lake et al. US 6,196,409.

Hall '114 teaches a cork with a tubular bore placing the interior of a closed container in communication with ambient, allowing venting while preventing leakage of the container contents.

Hall '114 does not teach a membrane through which gas may pass.

Lake '409 teaches a venting means, comprising a porous acrylic copolymer membrane, having a non-woven fabric support such as nylon (column 4, lines 42-46). A fluorocarbon-treated polyethylene film is also listed as a preferred material, in column 4, lines 37-41. The reference teaches pore diameter to be between 0.2 and 1.0 micrometers (column 4, lines 30-31), and being permeable to gas but impermeable to liquid (column 2, lines 35-36). Furthermore, Lake '409 teaches the membrane may be formed within a housing, whereby the membrane is secured within the housing while both sides of the membrane are accessible by air (column 5, lines 16-18). Finally, Lake '409 teaches the invention may be part of a cap secured to any container filled with gasifying liquid products (column 3, lines 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cork closure of Hall '114, replacing the vent mechanism with the membrane taught by

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Lake '409, motivated by the benefit of allowing gas to escape the container while sealing against liquid flow.

Regarding claim 6, Examiner takes Official Notice that it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the membrane of a polyamide film.

Regarding claims 7, 10, and 16, it would have been obvious to provide the membrane within a tube placed within the duct, because it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Examiner notes the embodiment of figure 4 shows a tubular duct is not required for proper functioning of the invention. Furthermore, the Specification lacks any teaching of an unexpected result, or even a particular function, of the tube (4). In view of these facts, the Examiner asserts the tube is not an essential component of the invention and one having ordinary skill would find it obvious to form the device with or without placing the membrane within a tube, within the duct.

4. Claims 1-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeGuisseppi US 5,522,769 in view of Lake et al. US 6,196,409.

DeGuisseppi '769 teaches a stopper comprising a plug with a gas-permeable, liquid-impermeable membrane (26). The device is capable of being used in the intended manner, i.e. for closing wine bottles. Examiner notes it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

DeGuisseppi '769 does not teach the membrane being formed of a porous material and further comprising a non-woven fabric support.

Lake '409 teaches a venting means, comprising a porous acrylic copolymer membrane, having a non-woven fabric support such as nylon (column 4, lines 42-46). A fluorocarbon-treated polyethylene film is also listed as a preferred material, in column 4, lines 37-41. The reference teaches pore diameter to be between 0.2 and 1.0 micrometers (column 4, lines 30-31), and being permeable to gas but impermeable to liquid (column 2, lines 35-36). Furthermore, Lake '409 teaches the membrane may be formed within a

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housing, whereby the membrane is secured within the housing while both sides of the membrane are accessible by air (column 5, lines 16-18). Finally, Lake '409 teaches the invention may be part of a cap secured to any container filled with gasifying liquid products (column 3, lines 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the plug closure of DeGuisseppi '769, forming the membrane of a porous medium and furthermore provided with a non-woven fabric support, as taught by Lake '409, motivated by the benefit of allowing gas to escape the container while sealing against liquid flow.

Regarding claim 6, Examiner takes Official Notice that it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the membrane of a polyamide film.

Regarding claims 7, 10, and 16, it would have been obvious to provide the membrane within a tube placed within the duct, because it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. Examiner notes the embodiment of figure 4 shows a tubular duct is not required for proper functioning of the invention. Furthermore, the Specification lacks any teaching of an unexpected result, or even a particular function, of the tube (4). In view of these facts, the Examiner asserts the tube is not an essential component of the invention and one having ordinary skill would find it obvious to form the device with or without placing the membrane within a tube, within the duct.

5. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall US 2,428,114 in view of Lake et al. US 6,196,409, in further view of Noel et al. US 5,904,965.

Hall '114 teaches a cork stopper, but does not teach the cork being formed of a polyethylene resin with an added expansion agent.

Noel '965 teaches a synthetic cork designed to replace traditional stoppers formed of cork, and having physical properties equal to or better than the physical properties of cork. The reference teaches polyethylene as a suitable material in column 9, line 7, as well as an added blowing agent in column 10, lines 35-36.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cork of Hall '114, forming it of the synthetic material taught by Noel '965, motivated by the benefit of producing a cork with better physical properties than those formed of cork material.

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


US 6,543,207	US 5,215,312
US 6,193,088	US 5,143,763
US 5,988,426	US 4,271,973
US 5,901,867	US 4,237,526
US 5,882,454	US 3,951,293
US 5,732,837	US 2,424,930

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James N Smalley whose telephone number is (571) 272-4547. The examiner can normally be reached on M-Th 9-6:30, Alternate Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lee Young can be reached on (571) 272-4549. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jns

  
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